

Status and Trend of the Marbled Murrelet in Waters of the Puget Sound

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Since 1996 we have been conducting at-sea population surveys for the threatened Marbled Murrelet (*Brachyramphus marmoratus*) within the inner marine waters of Washington State. Portions of Puget Sound, Hood Canal, San Juan Islands, and the Strait of Juan de Fuca are surveyed annually during the breeding season as part of a multi-agency coordinated effort throughout the listed portion of the murrelet's range (Washington, Oregon, California) under the federal Northwest Forest Plan's Effectiveness Monitoring program. Understanding the current population size and its trend over time are key components of this monitoring program. A standardized survey protocol was initiated among five conservation zones stretching from Washington to northern California in 2000. This has made possible comparisons among years and zones using this five-year dataset. Point estimates of murrelet numbers range from 5,000 to 10,000 in Washington's inner marine waters over this time with large confidence intervals making trend identification difficult after just five years. Estimates of reproductive output from juvenile:adult ratios of birds at sea in late summer show that reproduction is low in this area, however not as low as in the southern portion of the breeding range (northern California). Surveys will continue in this area into the foreseeable future, along with a radiotelemetry study that began in 2004 to compliment this survey effort and understand reproductive dynamics more thoroughly using a direct approach of monitoring individual nesting attempts.